

# *Environmental Stewardship*

in King County



King County  
Department of  
Natural Resources and Parks



2014  
Annual Report  
King County Department of  
Natural Resources and Parks



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## Environmental Stewardship in King County

### Vision

Sustainable and livable communities and a clean and healthy natural environment that support a prosperous and resilient economy.

### Mission

Provide regional parks and trails, protect the region's water, air, land, natural habitats and historic properties, and reduce, safely dispose of and create resources from wastewater and solid waste.

### Goals

**Environment**  
Minimize waste and emissions, maximize resource re-use and recovery, foster environmental stewardship, promote conservation, and protect and restore habitats, ecological functions and aquatic conditions.

**People and Communities**  
Protect and improve human health and safety, foster community-building and healthy living, and preserve and enhance historic properties.

**Fiscal Responsibility and Economic Vitality**  
Support King County's prosperity and ensure ratepayer value through effective, efficient and equitable programs.

**Quality Workforce**  
Develop and empower our most valuable asset – our employees; build internal capacity for excellence, equity and fairness in service delivery.



## From the Executive

### Thanks for taking a moment to learn more about the King County Department of Natural Resources and Parks.

Through scientific and technical research, policy development and implementation, DNRP plays a central role in my administration's four main policy priorities:

- Confronting climate change through innovation, collaboration, and resourcefulness, as we tackle what is perhaps the defining issue of our time;
- Creating the best-run government through efficient and wise use of public resources;
- Building equity within our service delivery to ensure that our County is a place where all have the opportunity to succeed; and
- Improving transportation options throughout the region to help keep people and commerce moving.

At its core, the Department of Natural Resources and Parks is a professional environmental stewardship organization, with more than 1,500 employees who have dedicated themselves to enhancing and preserving our County's environmental health, which is the wellspring of our tremendous quality of life.

I want to thank all DNRP employees for their hard work in 2014, and I look forward to our work together in 2015, for the benefit of all King County residents, businesses and the environment.

Sincerely,

Dow Constantine,  
King County Executive

*Environmental stewardship and excellent customer service are at the core of everything we do at the King County Department of Natural Resources and Parks.*



## From the Director

### Guided by these commitments, and focused on Executive Constantine's four main policy priorities, here are some examples of the work we performed in 2014:

- With support from Wastewater Treatment Division (WTD), we partnered with the City of Seattle to launch the Green/Duwamish Watershed Strategy to coordinate work being done across the 500-square-mile watershed.
- Our Water and Land Resources Division (WLRD), working with the King County Flood Control District and the Department of Permitting and Environmental Review, helped complete the first phase of a two-year investigation to update landslide hazard information for King County's river valleys and floodplains.
- Employees from WLRD and the Director's Office were also instrumental in helping Executive Constantine launch his Local Food Initiative, a multi-faceted approach to improving access to healthy foods, getting more King County farmland into production, and improving the County's rural economy.
- Along with making progress on our own "Beyond Carbon Neutral" commitment, DNRP was instrumental in leading the King County-Cities Climate Collaboration, including developing and adopting near-term countywide climate pollution reduction targets and securing commitments with partners to achieve them.
- Employees with WLRD designed and constructed three large habitat restoration projects - including a major project at the Upper Carlson levee on the Snoqualmie River - working with regional salmon recovery partners and numerous grant agencies.
- King County Parks made major improvements to the Weyerhaeuser King County Aquatic Center lighting and ventilation systems, and installed the largest installation of solar panels produced in-state.
- Building on success in generating business revenue to support operations, Parks attracted and retained corporate partners and special events such as the Marymoor Park Concert series, the Movies@Marymoor outdoor cinema, and Timber! Outdoor Music Festival at Tolt-MacDonald Park.
- Largely through its community grants programs, Parks supports communities and builds assets for public use, including rebuilding Ravensdale Park, supporting the Evergreen Pool and funding for the South King County Health Initiative.

- King County's Solid Waste Division (SWD) expanded its Spanish-language curbside recycling education program, "Recicla más. ¡Es facilísimo!," providing Spanish-speaking residents access to recycling education and materials.
- The SWD Cedar Hills Regional Landfill gas scrubbing system produced more than 129 million BTUs of purified methane injected into the natural gas pipeline each month, contributing to the County's goal of 50 percent renewable energy production vs. energy use.
- The division's redeveloped Bow Lake Recycling and Transfer Station earned the highest possible platinum certification from the Leadership in Energy and Environmental Design green building rating system.
- The WTD moved closer to its goal of being one of the nation's first "carbon-neutral" wastewater utilities and started producing renewable energy with its waste-to-energy system at the West Point Treatment Plant.

We have a tremendous team - one that proves daily its commitment to innovation, conservation and equity. It is an honor to work with this talented group of professionals for the greater good of King County's environment and its citizens.

Sincerely,

Christie True,  
DNRP Director

# 2014 KING COUNTY Department of *by the numbers* Natural Resources and Parks



## facilities

28,000



acres of parks and natural lands

miles of underground wastewater pipes and tunnels

700 low impact development sites

353

combined sewer overflow treatment plants



920 acre

Cedar Hills Regional Landfill



500

flood facilities and revetments totaling more than



119 miles

200 parks

180 miles of backcountry trails

commercial and residential stormwater control facilities

2,369

8 solid waste transfer stations



2 rural drop boxes

3

major regional wastewater treatment plants

4 smaller treatment plants

## features

2,131 square miles

population 1,931,249

14<sup>th</sup> most populated county in the United States (out of 3,033)

lakes and reservoirs

760

975 wetlands



## features

39

6 major river systems

3,000 miles of streams



3

federally protected salmon species

38

inches average annual precipitation

37

100 miles of marine coastline



850,000 acres of forestlands





## Strategic Initiatives in the Director's Office

### Equity and Social Justice in DNRP

In delivering a broad array of public health and natural resources management services, DNRP has significant opportunities to advance the King County Equity and Social Justice (ESJ) policy.

Identified by Executive Constantine as a key priority, the ESJ policy seeks to create communities where “all people have full and equal access to opportunities that enable them to attain their full potential.”

To advance toward equity and social justice in the work of DNRP, the department is aggressively pursuing four inter-related ESJ goals:

- Workforce diversity;
- Workplace inclusivity;
- Inclusive communication, education and engagement; and
- ESJ in routine business practices

Progress toward these four goals is coordinated at the department level by an ESJ team with liaison to each division that:

- Develops and implements an annual work program;
- Coordinates with agencies, jurisdictions and community organizations; and
- Builds from the innovations advancing in our Divisions and lines of business.

Notable ESJ achievements in 2014 included:

- Strengthening community engagement through multi-language outreach in education and capital project implementation;
- Focusing on food access by convening a Kitchen Cabinet and developing a Local Food Initiative; and
- Targeting facility improvements, like regional trails and flood protection projects, for priority populations, including low income, racially diverse, and those with limited English-speaking abilities.

**Employees with the DNRP Director's Office work to develop strategies for several important executive initiatives that cross department and division boundaries. Here are 2014 highlights:**

#### Green/Duwamish Initiative

King County and Seattle launched this new initiative to improve conditions throughout the Green/Duwamish watershed. The goal is to better coordinate the work already being done by local, state, and federal agencies to manage habitat restoration, salmon recovery, flood control, public health, and more. This includes cleanup of the Lower Duwamish Superfund site. The strategy also addresses the need to reduce pollution that occurs upstream.

#### Climate change

The department made significant progress on its commitment, Beyond Carbon Neutral, including starting a carbon and energy investment pilot program to reduce operational emissions and fund divisional projects that save money, energy and greenhouse gas emissions (GHG). Also, the DNRP-supported King County-Cities Climate Collaboration (K4C) led work that resulted in adoption of near-term, countywide GHG reduction targets by the King County Growth Management Planning Council, while K4C partner cities representing nearly two thirds of King County's population adopted climate commitments to help achieve the new GHG reduction targets.

#### Salmon recovery

The ongoing partnership between King County, state, federal and local governments and volunteers to restore Lake Sammamish kokanee salmon had a successful spawning season in 2014, including kokanee fry that were hatched from wild fish spawned at the Issaquah Hatchery. Interior Secretary Sally Jewell joined Executive Constantine and other leaders at the fifth-annual fry release.

#### Energy planning

With renewable energy production at the Cedar Hills Regional Landfill, South Treatment Plant, and the cogeneration system at the West Point Treatment Plant, the County is generating or procuring the equivalent of 57 percent of its energy needs from renewable sources. The County is on track to reach its 2015 energy conservation goal of 15 percent, while saving the public more than \$3 million annually through energy efficiency efforts.

#### Performance management

DNRP uses performance information to seek guidance from stakeholders and elected leaders, target resource use and clarify direction for employees. Improvements in DNRP performance systems are focused on implementing the King County Strategic Plan and delivering work program expectations throughout the department.

#### Local food economy

Employees from DNRP and the Director's Office, in partnership with the Department of Public Health, were instrumental in launching Executive Constantine's Local Food Initiative, a multi-faceted approach to improving access to healthy foods, getting more King County farmland into production, and getting more food grown in King County into restaurants, grocery stores and other businesses.

#### Historic preservation

King County's Historic Preservation Program employee work included cemetery workshops where volunteers were trained in proper gravestone cleaning methods, while a Vashon Island survey showed a variety of

resources, including historic beach cottages, farms and mid-century modern residential subdivisions. Program employees worked with partners to designate landmark properties, including Delta Masonic Hall in Tukwila and the Kenmore Community Clubhouse. Two of the more unusual designations were the historic ferry clock in downtown Kirkland, and Mill Creek Historic District in Kent.

#### Community Service Areas (CSAs)

Work to heighten public engagement and improve communication with residents of unincorporated King County included another round of 27 CSA grants totaling \$63,000. Grants offer unincorporated area residents the chance to participate and be more connected in their communities. Numerous King County officials participated in a series of CSA meetings that gave citizens the ability to learn about services, discuss issues and ask questions.

#### Eastside Rail Corridor

This multipurpose corridor runs through the Eastside's most-populous area from Woodinville to Renton, and work performed in 2014 by DNRP employees with coordination from the Eastside Rail Corridor advisory committee included developing a baseline corridor inventory and planning a connection feasibility study. This work will continue in 2015, as efforts move forward to improve this tremendous public resource that will one day improve mobility, recreation and utility delivery on the Eastside.





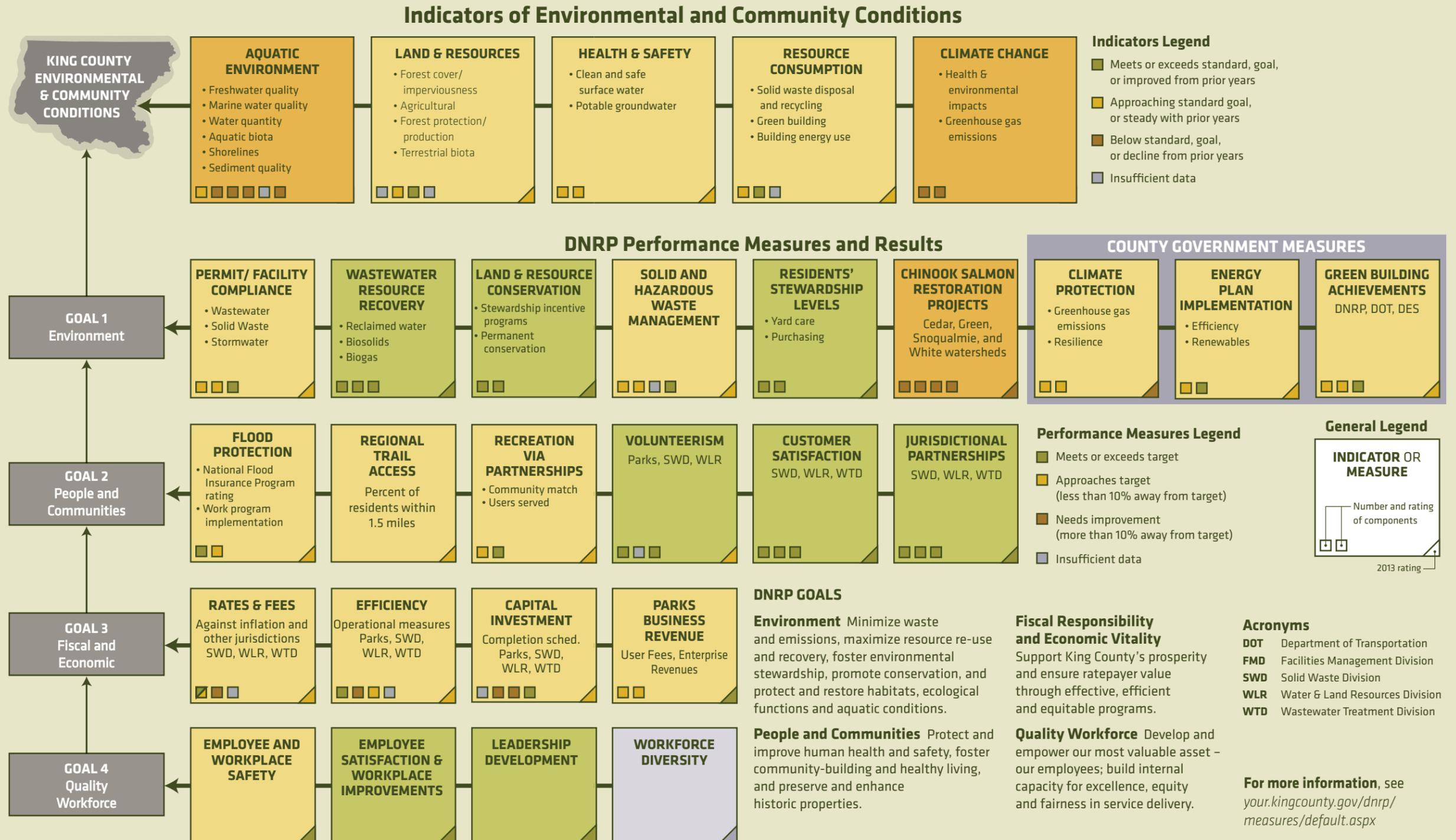
The King County Department of Natural Resources and Parks (DNRP) has a performance-oriented culture rooted in employee values, leadership commitment, and a history of using performance information to:

- Strengthen accountability with elected leaders, ratepayers, residents, and stakeholders.
- Learn about program effectiveness to guide continuous improvement.
- Foster engagement with regional partners by clarifying outcomes we seek.
- Convey organizational priorities and performance expectations to employees.

This marks the ninth consecutive year of providing a DNRP online performance report that includes data on environmental and community conditions in King County and annual results for efficiencies, resource recovery, conservation and customer satisfaction.

In support of the goals of the King County Strategic Plan, DNRP is achieving process efficiencies and improving customer service through Lean continuous improvement techniques and line of business planning. Managers invest in leadership and employee development that build competencies, improve performance, and achieve organizational goals of environmental quality, healthy people and communities, fiscal stewardship and quality workforce.

Many thanks to all DNRP employees who drive performance improvements and to the customers and stakeholders who provide the feedback needed to improve service.





## 2014 DWRP Awards

### INTERNATIONAL

#### Don't Drip and Drive Campaign

Water and Land Resources Division, Stormwater Services Section and Stormwater Outreach for Regional Municipalities

*Summit Creative Award Gold – Cause-Related/Sponsorship Summit International Awards*

#### EnviroStars Recruitment Video: “Good for Business. Good for the Environment.”

Local Hazardous Waste Management Program

*MarCom Award – Gold*

Association of Marketing and Communications Professionals

#### Moderate Risk Waste Collection Team/Local Hazardous Waste Management Program

Solid Waste Division, Recycling and Environmental Services

*Marine Flare Collection Service – Thinking Out of the Box Award*

North American Hazardous Materials Management Association

#### Wastewater Treatment Division

*Operations Ingenuity Award*

Water Environment Federation

### NATIONAL

#### Bow Lake Recycling and Transfer Station

Solid Waste Division, Engineering Services

*2014 Excellence Award – Transfer Stations*

Solid Waste Association of North America

#### Bow Lake Recycling and Transfer Station

Solid Waste Division, Engineering Services

*Leadership in Energy and Environmental Design – Platinum*

U.S. Green Building Council

#### Brightwater Treatment Plant

Wastewater Treatment Division

*Peak Performance Award – Gold*

National Association of Clean Water Agencies

#### Carnation Treatment Plant

Wastewater Treatment Division

*Peak Performance Award – Gold*

National Association of Clean Water Agencies

#### Compost Days

Solid Waste Division, Recycling and Environmental Services

*Silver Anvil – Integrated Communications, Government*

Public Relations Society of America

#### Don't Drip and Drive Campaign

Water and Land Resources Division, Stormwater Services Section and Stormwater Outreach for Regional Municipalities

*Silver Anvil –*

*Public Service, Government*

Public Relations Society of America

#### Interagency Compliance Team

Local Hazardous Waste Management Program

*Pollution Prevention*

North American Hazardous Materials Management Association

#### South Treatment Plant

Wastewater Treatment Division

*Peak Performance Award – Platinum*

National Association of Clean Water Agencies

#### Vashon Treatment Plant

Wastewater Treatment Division

*Peak Performance Award – Gold*

National Association of Clean Water Agencies



#### Wastewater Treatment Division

*Best Diversity Company in Engineering and Information Technology*

Diversity/Careers Magazine

#### West Point Treatment Plant

Wastewater Treatment Division

*Peak Performance Award – Platinum*

National Association of Clean Water Agencies

### STATE

#### Carnation Treatment Plant

Wastewater Treatment Division

*Outstanding Wastewater Treatment Plant Award*

Washington State Department of Ecology

#### Recicla más. ¡Es facilísimo!

Solid Waste Division, Recycling and Environmental Services

*Recycler of the Year*

Washington State Recycling Association

#### Recycled Asphalt Shingles, Bow Lake Recycling and Transfer Station

Solid Waste Division, Recycling and Environmental Services/Engineering Services

*Special or Innovative Use Award*

Washington Asphalt Pavement Association

#### Seahurst Park Shoreline Restoration Project

Water and Land Resources Division, Rural and Regional Services, and Water Resource Inventory Area 9

*Livable Community Awards*

Futurewise

#### Tolt River Conservation Project

Water and Land Resources Division, Rural and Regional Services

*Bravo Award – Outstanding Project*

Washington State Salmon Recovery Funding Board



#### Transfer of Development Rights and Local Infrastructure Funding Partnership with City of Seattle

Water and Land Resources Division, Rural and Regional Services

*Governor's Smart Communities Award – Outstanding Achievement in Creating Livable and Vibrant Communities*

Washington State Governor's Office

### REGIONAL

#### Automated Traffic Management System, Bow Lake Recycling and Transfer Station

Solid Waste Division, Engineering Services

*Excellence in Design – Silver*

American Council of Engineering Companies

#### Bow Lake Recycling and Transfer Station

Solid Waste Division, Engineering Services

*Energy/Industrial Green Project of the Year*

Engineering News Record

#### Bow Lake Recycling and Transfer Station

Solid Waste Division, Engineering Services

*Project of the Year – Finalist*

Engineering News Record

#### Compost Days

Solid Waste Division, Recycling and Environmental Services

*Totem Award – Public Service*

Puget Sound Chapter of the Public Relations Society of America

#### Environmental Planning Team

Wastewater Treatment Division, Environmental and Community Services

*John D. Spellman Historic Preservation Award – Preservation Planning*

King County Executive



#### Grow Smart, Grow Safe® iPhone App

Local Hazardous Waste Management Program

*Top Ten Green Mobile Apps*

Oregon Environmental Council

#### King County's Marymoor Park

Parks and Recreation Division

*2014 Best of Western Washington – Dog Park*

KING 5

#### Loop® Promotional Videos

Wastewater Treatment Division, Resource Recovery

*Best in Pride Award*

Northwest Biosolids Management Association

#### Recicla más. ¡Es facilísimo!

Solid Waste Division, Recycling and Environmental Services

*Radio Advertising for Multicultural Communication – Certificate of Excellence*

*Program Design for Community Relations Government – Certificate of Excellence*

Puget Sound Chapter of the Public Relations Society of America

### LOCAL

#### Boise Creek Stream Steward Program Water Quality Project Support

Water and Land Resources Division, Stormwater Services Section

*Local Government Conservation Award*

King Conservation District

#### Career Fair Booths

Solid Waste Division

*Outside Booth – First Place*

*Inside Booth – First Place*

*People's Choice Booth – First Place*

Women in Trades Career Fair

#### EnviroStars Certification Program

Local Hazardous Waste Management Program

*Best of Renton – Finalist, Green Business*

Renton Reporter

**MISSION**

*To enhance the quality of life for communities by providing environmentally sound stewardship of regional and rural parks, trails, natural areas, forest lands, and recreational facilities, supported by partnerships and entrepreneurial initiatives.*



*Parks and Recreation Division*

The Parks and Recreation Division offers 200 parks, 175 miles of regional trails, 180 miles of backcountry trails, and more than 28,000 acres of open space, including such regional treasures as Cougar Mountain Regional Wildland Park, Marymoor Park, the Weyerhaeuser King County Aquatic Center, and the Cedar River Trail.

By cultivating strong relationships with non-profit, corporate and community partners, King County Parks provides recreational opportunities for King County residents and protects the region's public lands, leaving a legacy for future generations.



The division celebrated many achievements in 2014, its first year of a voter-approved King County Parks, Trails, and Open Space Replacement Levy. The levy will help ensure that the County's vast system of parks and trails remains clean, safe and open for the next six years.

**Energy efficient upgrades to the Weyerhaeuser King County Aquatic Center**

In 2014, King County Parks invested in energy efficient improvements to the lighting and mechanical ventilation systems at the Weyerhaeuser King County Aquatic Center (WKCAC). The WKCAC is the largest solar photovoltaic energy generation facility in the state using "Made in Washington" panels and inverters, creating green jobs and clean energy investment.

**Open space protection**

Parks secured and protected a total of 563 acres of open space in 2014, including sites at Cougar-Squak Corridor and Taylor Mountain Forest, and nine separate sites on Vashon Island. The acquisitions enhance recreational opportunities, protect habitat for fish and wildlife, and conserve our region's natural heritage.

**Trails**

In 2014, Parks secured \$2.2 million in state and federal funds to support continued development and expansion of King County's regional trails system. Grants will help continue to fund upgrades to the East Lake Sammamish Trail and the design and construction of the Lake-to-Sound Trail, a 16-mile connection of existing trails and right-of-way alignments through five cities for a continuous trail from south Lake Washington to Puget Sound.

**Major events and partnerships**

King County Parks continued to successfully attract major events and partners in 2014, providing critical revenue for the operations and maintenance of the division's vast network of parks and trails.

Timber! Outdoor Music Festival returned for its second year at Tolt-MacDonald Park in Carnation, with an additional day and a 50 percent increase in attendance from 2013. Also in its second year, AEG Live booked the highest grossing 23-show summertime line-up for the Marymoor Park Concert Series. Swedish - Redmond joined as a presenting sponsor of the concert series, and committed to sponsoring the series for an additional three years.

The division's key partnership with Laird Norton Wealth Management that launched the King County Parks Foundation in 2013 was further refined in 2014 when the foundation secured a seven-member advisory board to develop and implement the foundation's business strategy. The foundation's mission is devoted to cultivating private-sector philanthropy to connect communities to regional trails, open space and parks, and to support the resiliency of the parks system for future generations.

**Volunteers**

More than 8,300 volunteers gave 57,600 hours of service in 2014. During 347 events, volunteers contributed to enhancing parks and trails by building backcountry trails, clearing litter, planting native trees and shrubs, and removing invasive species. Volunteers planted 18,786 native trees and shrubs and removed 463 cubic yards of invasive weeds. In partnership with 4Culture, King County's cultural services agency, the division commissioned a public art project in the Wayne Tunnel on the Burke-Gilman

Trail near Kenmore. Working with the artist, 66 volunteers contributed nearly 300 hours painting the vibrant artwork in the tunnel. The work is part of the Regional Trail System's master plan to bring public art and integrated design to the trails.

**Community partnerships and youth sports**

In 2014, through the Community Partnerships and Grants Program, Ravensdale Park in south King County began a major transformation with the addition of two multi-use synthetic ballfields, a restroom, maintenance building, parking lot, and more. These improvements provide many more recreation opportunities and create a valuable community asset. This unique partnership leveraged the division's \$2 million investment with a \$2 million investment from the city of Maple Valley and \$2 million in capital fundraising and in-kind services and community resources secured by the Ravensdale Park Foundation.

The Youth Sports Facilities Grant Program awarded nine matching grants totaling \$555,000 to support new sports complexes, playgrounds, batting cages, a pool, and a rowing facility. These funds included a \$100,000 grant toward the "I-CANN" Health Initiative for play equipment in south King County. These projects will leverage more than \$1 million and promote youth health and recreation throughout King County through partnerships with cities, schools and community organizations.

**OUTLOOK**

Over the next five years, the division will continue to pursue a systems approach to protecting land, prioritizing sites that connect to or close gaps in existing public open space corridors, provide public access for recreation and increase regional trail connections. In particular, through the King County Parks Capital Improvement Program, the division will work to improve public access to thousands of acres of open space and backcountry trails.



# Solid Waste Division



## MISSION

*The Solid Waste Division brings the best people together to deliver value to our customers and stakeholders and continuously improve waste prevention, resource recovery, and waste disposal.*



## What we do

The Solid Waste Division is a forward-thinking organization that provides environmentally responsible solid waste transfer and disposal services in King County. The division operates eight transfer stations, two rural drop boxes, and the Cedar Hills Regional Landfill – the only operational landfill in the County. Our stakeholders include residents and business owners in unincorporated King County and 37 cities throughout the County. The division works closely with our stakeholders to continue our national leadership in waste prevention, resource recovery, and waste disposal.

purify significant volumes of landfill gas into usable methane. In 2014, the division received approximately \$2.2 million in revenue from the sale of landfill gas. The gas is sold as RNG for transportation uses in Tacoma and California, and displaced the equivalent of more than 11.2 million gallons of diesel fuel in 2014.

## Capital improvements

In September, King County began work to replace its 50-year-old Factoria Transfer Station in Bellevue with a larger, more efficient recycling and transfer station offering numerous recycling opportunities for customers and benefits to the environment.

The new facility will expand the household hazardous waste collection area and include collection of recyclable materials. Waste compactors will decrease the number of transfer trailer truck trips required to and from the station. Construction is expected to last until December 2017, and the current station will remain open to customers throughout the entire process. In collaboration with the City of Bellevue, the division issues regular project updates to residents, businesses, and interested parties and stakeholders.

Work continued to site a new Southeast County Recycling and Transfer Station that will replace the old and undersized Algona Transfer Station.

After completing Phase 1 of the Transfer Plan Review, the King County Council directed the division to do supplemental work, Phase 2, on whether a new Northeast Recycling and Transfer Station should be built to replace the old Houghton Transfer Station. The review will also assess the planned closure of the Renton Transfer Station and the effect on self-haul customers using that station. A final report is due to council in 2015.

## Regional community

Thanks to new interlocal agreements and careful control of expenditures, the division maintained existing tipping rates and fees throughout the year. The current rate of \$120.17 per ton, which was established in 2012, will remain in effect for the 2015-16 biennium.

Both internally and externally, the division furthered its Equity and Social Justice Initiatives in 2014. When creating public outreach education materials and documents, the division's graphic designers took a transcreation approach, meaning

publications were designed with target languages in mind rather than just swapping in translated text, which resulted in better communication between the division and the public.

Internally, the division held awareness events and micro-aggressions training for employees, and developed an ESJ High School Internship Program. Interns were chosen based on need and demonstrated willingness to work and learn. The division's interns are immersed in a professional office environment where they learn the fundamental skills of administrative work that can be carried with them into their future careers.

Compared to 2013, total tonnage disposed grew in 2014 by 4.3 percent, about 34,155 tons. Almost 12,000 tons came from Seattle residents and businesses because of the closure of the North Seattle Transfer Station. This puts the system-wide increase, based on better economic conditions in the service area, at about 22,000 tons. In 2014, the division collected almost 9,000 tons more yard waste compared to 2013.



## OUTLOOK

In 2015, the division will complete Phase 2 of the Transfer Plan Review. The Resource Recovery Program will expand to the Bow Lake Recycling and Transfer Station. New lines of business will be identified and used to develop a sustainable 10-year business plan. Customer engagement, public outreach, and inclusive programming will continue so the division can continue to lead the way in waste prevention, resource recovery, and waste disposal.



## Wastewater Treatment Division

### MISSION

King County's Wastewater Treatment Division protects public health and enhances the environment by treating and reclaiming wastewater, recycling solids and generating energy.

### What we do

Long guided by its forward-thinking vision, "Creating Resources from Wastewater," the division is an innovative clean-water utility that provides wholesale wastewater treatment services to 17 cities, 17 local sewer districts and more than 1.5 million residents across a 420-square-mile area in King, Snohomish and Pierce counties.

The division's 630 employees plan and design new facilities, regulate the disposal of industrial waste, educate the public and businesses on pollution prevention, and manage the regional system of treatment plants, pipelines and pump stations that operate 24/7.

By exploring new technologies and harnessing valuable resources from the treatment process, such as energy, recycled water for irrigation, and biosolids to return carbon and nutrients to soils, the division strives to be among the nation's first carbon-neutral wastewater utilities.

## 2014 Accomplishments

### Plant operation

All five of the division's treatment plants continue to protect our waterways by achieving perfect compliance with state and federal permit requirements for effluent discharges during the prior calendar year.

The division completed negotiations with the state Department of Ecology to renew the National Pollutant Discharge Elimination System (NPDES) Permit for the West Point Treatment Plant.

### Energy and sustainability

The division recycled 100 percent of the Loop® biosolids in uses such as forestry, agriculture and commercial composting applications, and demand for this nutrient-rich resource remained strong.

In a significant ruling, the Washington State Court of Appeals overturned a biosolids ban in Wahkiakum County, offering certainty to the division and its Loop® customers that local jurisdictions cannot prohibit the beneficial use of biosolids, which is regulated by state law.

The utility publicly celebrated the commissioning of its new cogeneration system at the West Point Treatment Plant, which will produce the equivalent of the energy used by almost 6,000 homes.

An energy-efficient lighting upgrade at South Plant will save an estimated \$33,000 each year in energy costs, thanks to a grant from Puget Sound Energy that funded the project.

In 2014, the Brightwater Treatment Plant supplied recycled water to the Willows Run Golf Course in Redmond for its irrigation needs. The South Treatment Plant made recycled water available to nearby commercial users.

As a result of the division's energy efficiency, renewable energy production and nutrient recycling, data from 2013 show the utility became carbon neutral in its operation.

### Education, outreach and community services

The division earned the John D. Spellman Award for exemplary achievement in historic preservation for consideration of cultural resources during project planning.

Activity at the Brightwater Treatment Plant's education and community center experienced substantial growth over the year, with nearly 200 public and private events, including three weddings.

Thousands of students and community members took treatment plant tours and participated in division-hosted educational events.

### Pollution control and cleanup

After nearly 15 years of study and early action cleanups, the U.S. Environmental Protection Agency issued a decision on the Lower Duwamish Superfund cleanup. The division will continue working with Boeing, Port of Seattle, and City of Seattle to support EPA's community engagement efforts related to the cleanup decision.

Construction continued on four major projects in Magnolia, North Beach and West Seattle to control combined sewer overflows that occur during heavy rains. The division continues to meet its consent decree compliance schedule requirements and project milestones for its Combined Sewer Overflow Control Program.

### Finance and administration

The Wastewater Treatment Division refinanced \$271 million in sewer revenue bonds, which will ultimately save the utility's ratepayers \$37.3 million. Since 2000, various refinancings of King County's bonds have saved the utility almost \$300 million.

Moody's and Standard & Poor's affirmed their respective ratings of the division's sewer revenue bonds at Aa2 and AA+, citing the utility's strong management practices, consistent financial performance and bright regional economic outlook.



tunnel beneath the Lake Washington Ship Canal to replace a wooden sewer line in service since 1935. The new tunnel will increase system reliability while helping to control combined sewer overflows during heavy rains.

A project required by the U.S. Army Corps of Engineers to restore wetlands that were impacted by Brightwater tunnel construction was completed in 2014.

The division also completed a 10-year eelgrass restoration and monitoring project to preserve critical habitat impacted by construction of the Brightwater marine outfall off Point Wells. The work, which was required by the Washington Department of Natural Resources, is bringing notable environmental benefits as eelgrass provides critical habitat for forage fish, salmon and even Orca whales.

The division's 2015-16 rate proposal was adopted by the Metropolitan King County Council, bringing the monthly wholesale sewer rate from \$39.79 to \$42.03 through the end of 2016. The rate is 62 cents less than what was predicted and adopted through the 2014 County budget, largely because of "best government" practices that include employee-identified efficiencies that directly saved ratepayers more than \$430,000—knocking off a full percentage point from the proposed rate increase for the two-year period.

### Capital projects

The division invested \$148.3 million in dozens of capital improvement projects to add system capacity, replace or rehabilitate aging facilities, and enable efficient operations. Construction was completed on King County's Kirkland Pump Station, which will provide additional capacity and increased system reliability in this growing Eastside community.

The Wastewater Treatment Division also completed the Ballard Siphon Replacement project, building a new

## OUTLOOK

The division will continue to maintain sound financial practices, meet stringent permitting requirements, and support programs to control new and ongoing sources of pollution.

The division will also look to the future by exploring new technologies and investing in programs to recycle resources, reduce waste and provide increased value to ratepayers.

# Water and Land Resources Division

## MISSION

*The Water and Land Resources Division protects King County's water and land resources by providing services that are legally required, protect public health and safety, and provide significant environmental benefits, supported by scientific data and monitoring. The division protects King County's water and lands so that they can be enjoyed today, and for generations to come.*

## 2014 Accomplishments

### What we do

Water and Land Resources Division employees are dedicated to protecting the health and integrity of the King County's natural resources.

The division provides flood control, stormwater management, water quality, and natural resource management services throughout the County.

Among the division's responsibilities is operating the County's Environmental Lab and Science section that provides environmental monitoring, data analysis, management and modeling services to many county departments and other jurisdictions. Additionally, the division houses the King County Hazardous Waste Management Program – a collaborative effort with the County and King County municipalities.

The division manages the Surface Water Management Program for unincorporated King County and oversees the River and Floodplain Management Program, which provides flood control services on all County rivers. The division is home to the County's Salmon Recovery forums, to programs that acquire open space, restore habitat and control noxious weeds, and that provide economic and technical support for forestry and agriculture.

### Stormwater Services

- Developed an asset management system for King County's 1,100 regional stormwater facilities, to prioritize facilities for repair or replacement.
- Completed 1,300 inspections of public and private facilities to improve maintenance, and completed 250 inspections of new low impact development facilities, as part of the innovative RainWise program.
- Partnered with farmers to remove sediment and invasive vegetation from 3,800 feet of agricultural waterways.

### Rural and Regional Services

- Launched Executive Constantine's Local Food Economy Initiative, and developed a set of 20 priority actions for 2015 to support the farm economy and access to affordable, healthy food for low-income residents of King County.
- Completed three large habitat projects:
  - Upper Carlson Restoration Project set back 1,500 linear feet of levee on the Snoqualmie River, to restore natural processes and construct a new flood facility;

- Fenster Revetment Setback and Habitat Enhancement Project on the Green River constructed more than 900 feet of new revetment to protect property, restore river access to two acres of floodplain, and revegetated five acres of floodplain habitat; and
- Big Spring Creek Restoration Project with the Army Corp of Engineers on the Enumclaw Plateau restored 4,000 feet of stream and 20 acres of wetland habitat.
- Permanently preserved approximately 700 acres of natural resource lands, including 295 acres of farmland, worth almost \$13 million.
- Helped relocate 30 out of 59 families, with the remainder of relocations scheduled in 2015, from Riverbend Mobile Home Park to move them out of this high risk flood area on the Cedar River.
- Surveyed 9,733 regulated noxious weed locations on public and private property and controlled 97 percent of infestations.
- Division employees continued implementation of the Secure Medicine Return program – the second of its kind in the nation.

### River and Floodplain Management

- Completed a Flood Control District-funded effort to evaluate and update King County landslide hazard mapping along river systems.
- Continued advancing the Green River System Wide Improvement Framework and corridor planning, completing the vision and goals, level of protection, alternatives analysis, and deficiencies action plan.
- Completed the Reddington Levee Setback project in Auburn, adding more than a quarter mile of new levee.

- Completed stakeholder outreach in the design and/or permitting for several levy projects:
  - Sinnema Qualla revetment along the Snoqualmie River
  - Countyline and Right Bank levee setbacks in Pacific
  - Gravel removal in the lower Cedar River in Renton
  - Willowmoor transition zone work on the Sammamish River
  - Lower Russell Road Levee setback in Kent
- Initiated the Cedar River Corridor Planning effort, to develop a resource and flood facility plan for the Cedar River.
- Completed five property buyouts, cost sharing on three home elevations and technical assistance for four farm pads to mitigate flood risks on private property.

### Science and Environmental Lab

- Identified more than \$600,000 in efficiencies at the Environmental Lab for 2014-15.
- The lab made \$300,000 in equipment improvements to assure service standards are met; completed an asset replacement project to upgrade the boilers, large chiller and hot water tanks; and is on track to replace the research vessel, *Liberty*.
- The lab completed 500,000 analyses – a 20 percent increase over last year – with a turnaround target met 95 percent of the time and an analytical accuracy rating of 99.4 percent.
- Employees responded to 29 water quality trouble calls, including eight sewage overflows, and collected and analyzed 77 trouble call samples.
- In support of Brightwater construction requirements, WLR Science employees led the successful

- effort to restore eelgrass in the wastewater outfall construction zone and monitor eelgrass for a decade.
- Science employees completed multiple major grants:
  - Assess stormwater infrastructure needs in WRIA 9
  - Update methodologies and coordinate stream benthos macroinvertebrate monitoring
  - Assess PCB loading to Lake Washington
  - Assess stream habitat in WRIA 8
  - Assess the effectiveness of King County's Critical Area Ordinance
  - Assess shoreline changes and compliance in WRIA 9

## OUTLOOK

Some of the priorities for 2015 include advancing the division's implementation of Equity and Social Justice in daily practices, developing comprehensive corridor action plans for each river basin and moving ahead with flood hazard and habitat capital projects with increased revenue from the King County Flood Control District.

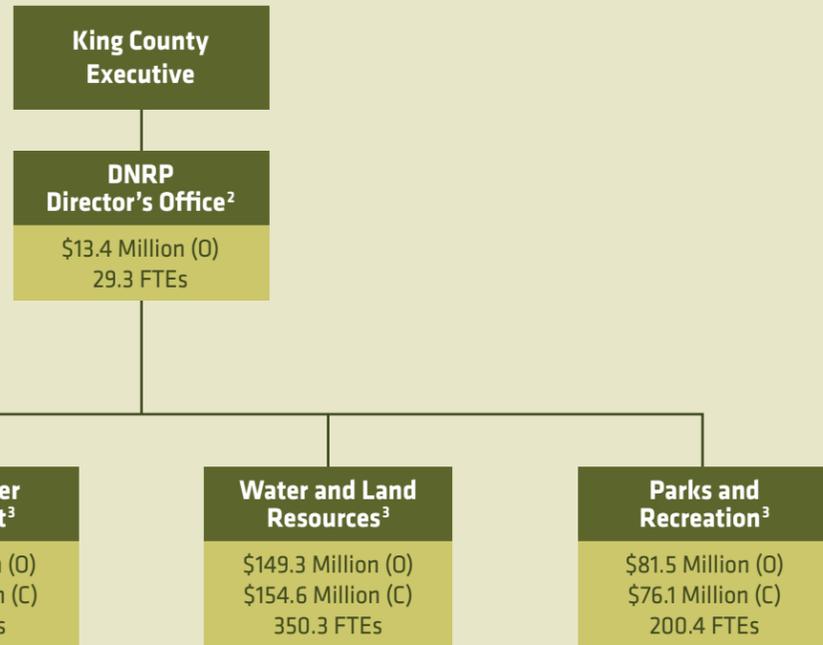
Employees will also begin implementing the Executive's Local Food Economy Initiative, put more King County farmland into production and get more new farmers onto the land. In a related action, the division is expected to complete the transition of the former Tall Chief Golf Course to active farmland.



# DNRP Financials

## DEPARTMENT OF NATURAL RESOURCES AND PARKS 2015/16 BIENNIAL BUDGET<sup>1</sup>

The following pages provide an overview of the Department of Natural Resources and Parks' adopted 2015 budget, along with a summary of the various charges for utility services provided by the Department's line divisions.



(O) = Operating Budget  
(C) = Capital Budget

<sup>1</sup> King County now appropriates budgets on a biennial cycle. Dollar figures represent two years of expenditure authority.  
<sup>2</sup> Includes budget for Historic Preservation Program (3.75 FTE's) and Community Services Area Program (4 FTE's)  
<sup>3</sup> Includes operating and YSFG expenditures, as well as \$8.9 million pass-through to cities and Woodland Park Zoo.

## Department of Natural Resources and Parks Rate Summary

	2005 Actual	2006 Actual	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Adopted
<b>Solid Waste Enterprise</b>											
Rate per ton at SWD transfer stations	\$82.50	\$82.50	\$82.50	\$95.00	\$95.00	\$95.00	\$95.00	\$109.00	\$120.17	\$120.17	\$120.17
Change from previous year	0.0%	0.0%	0.0%	15.2%	0%	0.0%	0.0%	14.7%	10.2%	0.0%	0.0%
Regional Direct Fee (\$/ton)	\$69.50	\$69.50	\$69.50	\$80.00	\$80.00	\$80.00	\$80.00	\$93.50	\$93.50	\$93.50	\$93.50
Change from previous year	0.0%	0.0%	0.0%	15.1%	0.0%	0.0%	0.0%	16.9%	0.0%	0.0%	0.0%
<b>Wastewater Treatment Enterprise</b>											
Monthly rate per household (\$/RCE)	\$25.60	\$25.60	\$27.95	\$27.95	\$31.90	\$31.90	\$36.10	\$36.10	\$39.79	\$39.79	\$42.03
Change from previous year	9.4%	0.0%	9.2%	0.0%	14.1%	0.0%	13.2%	0.0%	10.2%	0.0%	5.6%
<b>Surface Water Management Program</b>											
Monthly rate per household <sup>1</sup>	\$8.50	\$8.50	\$9.25	\$9.25	\$9.25	\$9.25	\$11.08	\$11.08	\$12.58	\$14.29	\$14.29
Change from previous year	0.0%	0.0%	8.8%	0.0%	0.0%	0.0%	19.8%	0.0%	13.5%	13.6%	0.0%
<b>Inflation Rate</b>											
(Change from previous year) <sup>2</sup>											
Seattle Consumer Price Index (CPI)	2.8%	3.7%	3.9%	4.2%	0.6%	0.3%	2.7%	2.5%	1.2%	1.8%	1.9% <sup>3</sup>

<sup>1</sup> Billed twice per year  
<sup>2</sup> Source: U.S. Bureau of Labor Statistics (CPI-U for Seattle MSA)  
<sup>3</sup> For 2015, forecasted change - Puget Sound Economic Forecaster, December 2014



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**King County**

Department of  
Natural Resources and Parks

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